

VII. DESCRIPTION OF TWO NEW SPECIES
OF *CARANX* FROM THE BAY OF BENGAL.

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Caranx guptæ, sp. nov.

D. v/28-30. P. 24. V. 5. 'A. ii/17. Ll. 114 (keeled plates 33, spined 20).

Height of body 2, and length of head $4\frac{1}{4}$ in the total length. Eye large, its diameter being $2\frac{1}{2}$ in the length of head, with adipose lid all round, one diameter from end of snout and two apart.

Shape.—The anterior root of the soft dorsal is the highest point in the curved upper (dorsal) profile, the point being situated nearer to the posterior end. The posterior portion of the dorsal profile from this point is more curved than the anterior portion which is more sloping. In the lower (dorsal) profile the curvature from the posterior end suddenly stops at the anterior root of the

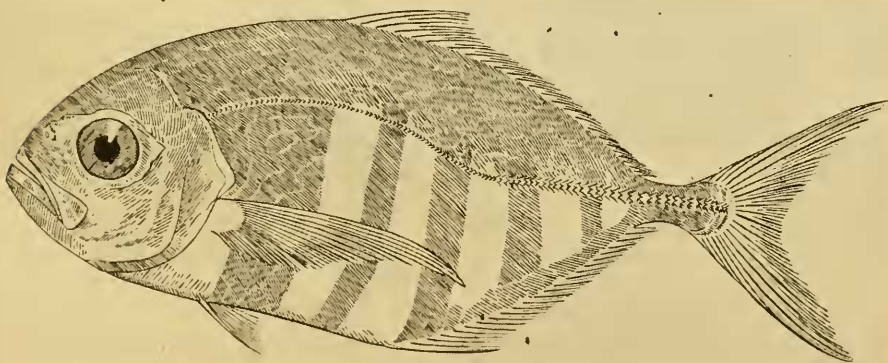


FIG. 1.—*Caranx guptæ*, sp. nov.

soft anal, from which point to a point directly below the lower jaw the profile is almost a straight line, which gives a characteristic shape to the species.

Mouth.—The cleft of the mouth is quite oblique, and is directed forward and upward. The lower jaw is longer than the upper.

Teeth.—Villiform and sharp in both jaws.

The pre-opercle is not serrated.

Fins.—The spinous portion of the dorsal fin is feeble and delicate, the anterior root of the soft anal is much behind the anterior root of the soft dorsal. There are two rudimentary detached anal

spines in front of the soft anal, which are concealed under a fold of skin. Pectorals long, slightly curved and tapering, contained $2\frac{3}{4}$ times in the total length. The ventrals are short and thick and arise vertically below the roots of the pectorals. The caudals are deeply forked.

Scales.—The scales are minute, the breast and head being perfectly naked.

Lateral line.—114 scales in all, of which the posterior 33 are covered with keeled plates; 20 of these keeled plates are armed with prominent spines. The lateral line runs straight forward from the root of the caudal fin until it passes all the keeled plates, when it curves forward, following almost accurately as a parallel curve of the anterior dorsal profile, ending in the upper corner of the operculum.

Colour.—Steel-grey with five broad vertical silvery bands which are more pronounced in the lower half. There is a small reddish area in the middle of the root of the caudal fin. The margins of the caudal and dorsal are tinged with black. There is a small horse-shoe-shaped mark in front of the snout coloured whitish grey on a black background.

Trawled by the "Golden Crown" off Elephant Point in July, 1908.

Length of two specimens.—16 cm.

Caranx auricoronæ, sp. nov.

D. vi/23. P. 22. V. 5. A. ii/21. C. 19. Ll. 80 (30 plates).

Height of body $1\frac{3}{4}$, and length of head $3\frac{1}{2}$ in the total length. Diameter of eye $2\frac{3}{8}$ in the length of head, one diameter from end of snout and two apart.

Shape.—Highly compressed, both the dorsal and ventral profiles convex except in the anterior third of the ventral profile. No concavity in the anterior profile in front of the eye, but a small depression just anterior to the first dorsal.

Mouth.—Oblique, upper jaw not protrusible, lower jaw longer, slightly curved and not horizontal.

Teeth.—Villiform in both jaws.

Fins.—Spinous dorsal not rudimentary but well-developed, quite separated from second dorsal by a smooth open space; the spines of the first dorsal are joined together by thin white membrane. In the second dorsal a secondary sexual character is well-developed in the male but entirely wanting in the female. In the male specimen the 7th to 15th soft dorsal rays, inclusive, are prolonged to a considerable length in soft black filiform prolongations. Some of the rays anterior to these appear to have been damaged. These filiform appendages are wanting in the anal fin of the male fish and in both soft dorsal and anal fins of the female which was found to be full of matured ova. The ventral fin, which is a little longer than the head, is anterior to the origin of the pectorals, and

appears perpendicularly below the depression in front of the spinous dorsal. The ventral fin is comparatively large and fan-like, the rays being long enough to reach the anterior root of the anal fin. All the rays are joined together by parachute-like thin black membrane of considerable width. The ventral fin appears to cover completely a trenchant space with a groove which extends from the root of the ventral to the anterior root of the anal. Within this trenchant groove, at about its middle, the cloacal opening is situated, posterior to which are two rather long detached anal spines. The position and character of the parachute-like covering of the ventral fin suggests some accessory function subserving breeding or development. Pectoral nearly $1\frac{1}{2}$ times as long as the head. No filiform prolongation of rays in the anal fin either in the male or female, but the anterior rays slightly longer than the more posterior ones. The caudal fin is deeply forked.

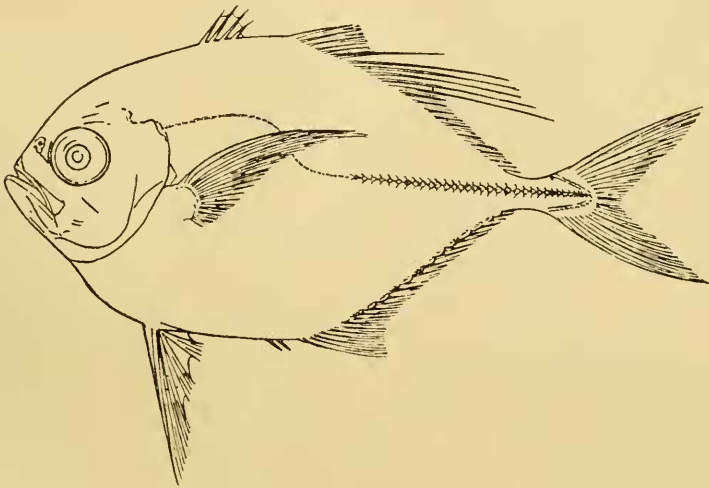


FIG. 2.—*Caranx auricoronæ*, sp. nov.

Colour.—Upper half steel-grey; eyes, body of fins and lower posterior half golden, and lower anterior half silvery; the edge of the caudal fin and soft dorsal black. The fold of thin membrane between the rays of the ventral fin quite black. There are, however, neither opercular spots nor any vertical bands or stripes of any kind in the adult.

Scales.—Present, small and deciduous, mostly in the caudal region.

Lateral line.—Covered with 30 plates which are not armed with spines nor keeled.

Two specimens, one male and one female with matured ova, caught by the steam trawler "Golden Crown" in the month of September, 1908, off the coast of Chittagong.

Length of specimens.—14 cm.